COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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GRACE ROBINSON HYDE
Chief Engineer and General Manager

July 2, 2014
File No. 31-320.10

Mr. Chris Marks
Terra Renewal
12812 Valley View St., #9
Garden Grove, CA 92845

Dear Mr. Marks:

Transmittal of LACSD JWPCP Biosolids Report

Attached please find the LACSD JWPCP Biosolids Report for May 2014. The Report includes the following data for your files:

Biosolids
- total and soluble metals
- digester performance
- detected priority pollutants
- miscellaneous constituents

I certify, under penalty of law, that the Class B pathogen reduction requirements in 503.32(b)(3) and the vector attraction reduction requirements in 503.33(b)(1) have been met. These determinations have been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

I certify, under penalty of law, that the biosolids produced at JWPCP are non-hazardous in accordance with Title 22, California Code of Regulations (CCR), Division 4.5, Chapter 11, Article 3, Section 66261.24(a)(2)(A) Table II (Priority Pollutant Metals).

Attached are the analytical testing results for JWPCP in accordance with Title 22, California Code of Regulations (CCR), Division 4.5, Chapter 11, Article 3, Section 66261.24(a)(2)(A) Table II (Priority Pollutant Metals).

Should you have any further questions or require additional information, please contact Matt Bao at (562) 908-4288, extension 2809.

Very truly yours,
Grace Robinson Hyde

Mike Sullivan
Division Engineer
Monitoring Section

MF:GS:lmb
Attachments

#2916758
DENALI_002346

Notice and Necessary Information

To be Completed by Preparers of Class B Biosolids

Facility Name: Joint Water Pollution Control Plant (JWPCP) **Monitoring Period:** 05/01/2014 to 05/31/2014

1. Pollutant and Nitrogen concentrations (report results in mg/kg on a 100% dry weight basis. Attach lab analyses).

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH_3-N	% solids
Result	9.08	4.55	407	19.1	0.90	22	56.7	23.5	874	46,100	7,570	28.9
Table 3	41	39	1500	300	17	na	420	100	2800	na	na	na
Table 1	75	85	4300	840	57	75	420	100	7500	na	na	na

Sampling date(s): 05/06/14 **Sample Number(s):** 14050700317

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

__√__ anaerobic for 19 days at 35.7 °C (96.2 °F) (range for past month)
Class B: either 15 days at 35°C to 55°C or 60 days at 20°C
___ aerobic digestion for ____to ____ days at _____to ____ degrees F / C (range for past month)
Class B: time (days) ≥ 20 - 15(temp, degrees C) for times between 40 and 60 days
___ drying beds for ____to_____ months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
___ fecal coliform: geometric mean of seven samples = _____ (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
___ lime stabilization: pH at 2 hours after addition = _____
Class B: pH 2 hours after addition of lime is ≥ 12

3. Vector Attraction Reduction:

__√__ Option 1: % VS_{in} = 75 % VS_{out} = 59 % VSR = 52 % per Van Kleeck method
VAR: VSR > 38%
____ Option 2/3: Bench scale test: % VSR = _____ after ____ days
VAR: additional VSR < 17% after 40 days (anaerobic), < 15% after 30 days (aerobic)
____ Option 4: SOUR = _____
VAR: SOUR < 1.5 mg O_2/hr/gram (dry weight)
____ Option 5: Composted _____ days at temps of _____ to _____degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
____ Option 6: time alkali added: _____ pH after 2 hours = ___ pH after 22 hours = ___
VAR: pH ≥ 12 for 2 hours after alkali addition, ≥ 11.5 for additional 22 hrs
____ Option 7: % solids = _____ Stabilization method: _____
VAR: stabilized solids > 75%
____ Option 8: % solids = _____
VAR: unstabilized solids > 90%
____ Option 9/10: Applier will inject/incorporate within _____ hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Mike Sullivan - Division Engineer

Phone: (562) 908-4288 Extension 2801 **E-mail:** msullivan@lacsd.org

Prepared By: G. Salva GS **Reviewed By:** M. Bao MB

Signature: _____ **Date:** 7/2/14

DENALI_002347

May 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake -Total Metals Concentrations
Mg/Kg Dry Weight

Sample No.	Date	% TS	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	Al
14010800328	1/7/2014	29.2	8.34	6.5	66.8	365	16.4	0.88	19.7	51.6	26.2	819	6,350
14020500337	2/4/2014	29	8.08	6.34	71.6	383	21.3	0.88	17.1	51.2	25.6	824	-
14030500291	3/4/2014	29.2	8.74	5.44	73.8	349	19.8	0.83	18.8	49.1	27.1	830	-
14040200281	4/1/2014	28.9	8.56	4.5	87	335	18.4	0.69	19.3	46.8	24.6	773	6,720
14050700317	5/6/2014	28.9	9.08	4.55	84.3	407	19.1	0.90	22	56.7	23.5	874	-
MEAN		**29**	**8.56**	**5.5**	**77**	**368**	**19.0**	**0.84**	**19**	**51.1**	**25.4**	**824**	**6,540**
MAX			**9.08**	**6.5**	**87**	**407**	**21.3**	**0.90**	**22**	**56.7**	**27.1**	**874**	**6,720**
TABLE 1 LIMITS		****	**75**	**85**	****	**4,300**	**840**	**57**	**75**	**420**	**100**	**7,500**	****
TABLE 3 LIMITS		****	**41**	**39**	****	**1,500**	**300**	**17**	****	**420**	**100**	**2,800**	****

Sample No.	Date	% TS	Sb	Ba	Be	Co	Fe	Mn	K	Ag	Tl	Sn	V
14010800328	1/7/2014	29.2	3.83	1,520	< 0.2	9.08	93,000	217	868	4.06	< 0.2	38.1	91.6
14020500337	2/4/2014	29	-	-	-	-	-	-	-	-	-	-	-
14030500291	3/4/2014	29.2	-	-	-	-	-	-	-	-	-	-	-
14040200281	4/1/2014	28.9	3.77	1,370	< 0.2	7.06	82,600	212	887	3.96	< 0.2	36.3	57.2
14050700317	5/6/2014	28.9	-	-	-	-	-	-	-	-	-	-	-
MEAN		**29**	**3.80**	**1,450**	**ND**	**8.07**	**87,800**	**215**	**878**	**4.01**	**ND**	**37.2**	**74.4**
MAX			**3.83**	**1,520**	**ND**	**9.08**	**93,000**	**217**	**887**	**4.06**	**ND**	**38.1**	**91.6**

\ = No limit
ND = Not Detected
-- = No Sample
Statistics use detected values only

May 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake - Nutrients and Miscellaneous Constituents
Mg/Kg Dry Weight (or as indicated)

Sample No.	Date	% TS	Sulfur	PO_4	NH_3-N	Org-N	NO_3-N	NO_2-N	Boron	Paint FilterTest (ml/100 g)	pH
14010800328	1/7/2014	29.2	37,900 [A]	86,800	6,680	49,000	< 137	< 3.42	23.7	< 1.0	8.2
14020500337	2/4/2014	29	36,600 [B]	-	6,550	47,700	< 138	3.77	-	-	-
14030500291	3/4/2014	29.2	33,800 [C]	-	5,740	47,700	< 137	4.7	-	-	-
14040200281	4/1/2014	28.9	34,100 [D]	79,000	6,720	47,200	< 138	3.87	23	< 1.0	8
14050700317	5/6/2014	28.9	34,000 [E]	-	7,570	46,100	< 138	4.71	-	-	-
MEAN		**29**	**35,300**	**82,900**	**6,650**	**47,500**	**ND**	**4.3**	**23**	**ND**	**8**
MAX			**37,900**	**86,800**	**7,570**	**49,000**	**ND**	**4.7**	**23.7**	**ND**	**8.2**

ND = Not Detected
- = No Sample
Statistics use detected values only.
A = Lab ID: 14010800329
B = Lab ID: 14020500336
C = Lab ID: 14030500292
D = Lab ID: 14040200280
E = Lab ID: 14050700316

DENALI_002349

2nd Quarter 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake - Soluble Metals Concentrations - Mg/L
Analyzed by California Title 22 Waste Extraction Test

Sample No.	Date	Al	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Fe
14010800331	1/7/2014	123.000	0.0662	0.140	30.900	< 0.010	0.0063	0.998	0.141	< 0.040	2,280
14040100283	4/1/2014	142.000	0.0613	0.133	38.100	< 0.010	< 0.005	1.130	0.112	< 0.040	2,000
MEAN		**133.000**	**0.0638**	**0.137**	**34.500**	**ND**	**0.0063**	**1.064**	**0.127**	**ND**	**2,140**
MAX		**142.000**	**0.0662**	**0.140**	**38.100**	**ND**	**0.0063**	**1.130**	**0.141**	**ND**	**2,280**
TITLE 22 STLCs		****	**15**	**5.0**	**100**	**0.75**	**1**	**5**	**80**	**25**	****

Sample No.	Date	Pb	Hg	Mo	Ni	K	Se	Ag	Tl	Sn	V	Zn
14010800331	1/7/2014	0.0504	< 0.0005	0.251	0.957	< 0.040	0.0331	< 0.020	< 0.040	< 0.040	1.770	8.340
14040100283	4/1/2014	0.0515	< 0.0005	0.246	0.924	< 0.040	0.0353	< 0.020	< 0.040	< 0.040	1.120	13.700
MEAN		**0.0510**	**ND**	**0.249**	**0.941**	**ND**	**0.0342**	**ND**	**ND**	**ND**	**1.445**	**11.000**
MAX		**0.0515**	**ND**	**0.251**	**0.957**	**ND**	**0.0353**	**ND**	**ND**	**ND**	**1.770**	**13.700**
TITLE 22 STLCs		**5.0**	**0.2**	**350**	**20**	****	**1.0**	**5**	**7.0**	****	**24**	**250**

ND = Not Detected
\ = No Limit
Statistics use detected values only.

DENALI_002350

2014 BIOSOLIDS MANAGEMENT PROGRAM

JWPCP Digester Performance

Month	Temp (°F)	Detention Time (Days)	VSD (%)
January	96.1	19	54
February	96.1	19	53
March	96.1	19	53
April	96.1	19	54
May	96.2	18	52
MEAN	**96.1**	**19**	**53**
MIN	**96.1**	**18**	**52**

Semi-Annual JWPCP Biosolids Cake
Detected Priority Pollutants
Mg/Kg on a Dry Weight Basis

Date	1/8/14
Sample Number	14010800328
	14010800329
Constituent	**Result (mg/kg)**
Arsenic	8.34
Cadmium	6.5
Chromium	66.8
Copper	365
Lead	16.4
Mercury	0.88
Nickel	51.6
Selenium	26.2
Silver	4.06
Zinc	819
Antimony	3.83
Cyanide	2.43
PP'-DDD	0.061
OP'-DDD	0.064
Diethylhexyl Phthalate	209

DENALI_002351